#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-016782 Address: 333 Burma Road **Date Inspected:** 16-Sep-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Hua Jie. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG components.

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG Trial Assembly Yard:** 

This QA Inspector observed the following work in progress:

OBG Seg 10BE and Seg 10CE:

The Shielded Metal Arc Welding (SMAW) process on weld joint nos: OBE10A-005 and 001. The welders are identified as 044515 and 044504 and were observed welding in the 4G position. ZPMC Quality Control (QC) was identified as Liu Hua Jie. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-B-U2-FCM-1.

The Submerged Arc Welding (SAW) process on weld joint no: OBE10A-003. The welders are identified as 040460 and 050295 and were observed welding in the 1G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by QC appeared to comply with WPS: B-T-223(2)1T-2.

The SMAW process on weld joint nos: BP130-001-020, 022 and 024. The welder is identified as 040270 and was

# WELDING INSPECTION REPORT

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observed welding in the 3G position. ZPMC QC was identified as Liu Hua Jie. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-B-U2-FCM-1.

See attached photo for further details.

The SMAW process on weld joint nos: BP076-001-020, 022 and 024. The welder is identified as 040378 and was observed welding in the 3G position. ZPMC QC was identified as Liu Hua Jie. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-B-U2-FCM-1.

See attached photo for further details.

OBG Seg 10BW and Seg 10CW:

Repair welding on weld joint nos: OBW10C-001 and 002. Welding process was identified as SMAW. The welder was identified as 040611 and was observed welding in the 4G position. ZPMC QC was identified as Zhou Peng. The welding variables recorded by QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair. Repair welding was done as per Welding Repair Report WRR: B-WR-15069 Rev-0. See attached photo for further details.

Repair welding on weld joint no: OBW10A-005. Welding process was identified as SMAW. The welder was identified as 046709 and was observed welding in the 4G position. ZPMC QC was identified as Zhou Peng. The welding variables recorded by QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair. Repair welding was done as per Welding Repair Report WRR: B-WR-15067 Rev-0.

Tower Trial Assembly Yard:

OBG Seg 9W:

Notification no: 006678.

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC QC personnel. This QA Inspector has generated MT report for this date. The members are identified as OBG 9W. MT was done at 5 locations of X37 shim plates after doing repair welding.

Notification no: 006684.

OBG Seg 10AW and Seg 10BW:

This QA inspector performed MT of approximately 15% of an area that has been previously tested and accepted by ZPMC QC personnel. This QA Inspector has generated MT report for this date. The members are identified as OBG components. The weld designations reviewed are as follows:

1) OBW10-001 to 005.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

| Inspected By: | Wadkar,Sailesh | Quality Assurance Inspector |
|---------------|----------------|-----------------------------|
| Reviewed By:  | Peterson,Art   | QA Reviewer                 |